DRAINAGE DESIGN

OPERATOR _____ ADDRESS _____

COMMUNITY _____ PRACTICE _____ JOB APPROVAL CLASS _____

FIELD NO. _____ DESIGNED BY _____ DATE _____

CHECKED BY _____ DATE _____

APPROVED BY _____ DATE _____

DESIGN FACTORS

DRAINAGE AREA _____ AC. MAX. EFFECTIVE HEIGHT _____ FT. (HT. BETWEEN ESW CREST AND C LOW POINT) ("≤15", "15<HT≤20", OR "20≤HT≤35") MAX. STORAGE _____ AC. - FT. ("≤50" OR ">50")

PIPE SPILLWAY

DESIGN STORM (IF REQUIRED) _____ (ENG. STD. 378) PEAK FLOW (IF REQUIRED)(q_p) _____ CFS (WV-ENG.-1)

DIAMETER _____ IN. LENTH _____ FT. (ENG. STD. 378) MATERIAL _____ INLET TYPE _____ IN. ("PROJECTING", "HOOD", "CANOPY", "DROP")

DROP INLET SIZE _____ (DIA. x HT. OR L x W x HT.) MATERIAL _____ STAGE TO ESW CREST _____ FT. (ENG. STD. 378, EFM-CHAP. 3, OR CHAP. 6)

PIPE PEAK DISCHARGE (IF REQUIRED) _____ CFS (EFM CHAP. 3 OR CHAP. 6) ADDITIONAL SEEPAGE PROTECTION _____ ("NONE", "ANTI-SEEP COLLARS", "DRAINAGE DIAPHRAGM")

PIPE OUTLET PROTECTION _____ ("NONE", "SPLASH PAD", "PLUNGE POOL", "RIPRAP LINE") PSW INLET PROTECTION _____ ("NONE", "ANTI-VORTEX PLATE" AND/OR "TRASH RACK")

VEGETATED EARTH SPILLWAY

(EFM - EXHIBITS 11-2 & NNTC 11-2.1)

SOIL TYPE _____ (USCS) VEGETATION _____ (SPECIES) RESISTANCE TO EROSION _____ ("RESISTANT" OR "EASILY ERODED")

ALLOWABLE VELOCITY (Va) _____ FPS DESIGN STORM _____ (ENG. STD. 378) PEAK FLOW (q_p) _____ CFS (WV-ENG.-1)

BOTTOM WIDTH _____ FT. STAGE (H_p) _____ FT. SIDE SLOPES (z) INSIDE _____ OUTSIDE _____

EXIT CHANNEL SLOPE - MAX. _____ % MIN. _____ % INLET CHANNEL SLOPE _____ % (SHOULD BE ≥ 2%)

LENGTH OF LEVEL SECTION _____ FT. MAX. DESIGN VELOCITY _____ FPS (MUST BE < ALLOWABLE VELOCITY) FREEBOARD _____ FT. (ENG. STD. 378)

WATER SUPPLY OR DRAIN AND FENCING

(ENG. STD. 378)

DIAMETER _____ IN. MATERIAL _____ LIVESTOCK WATERING RAMP _____ ("YES" OR "NO")

TROUGH TYPE _____ TROUGH SIZE _____ TYPE FENCE _____

EMBANKMENT

(ENG. STD. 378)

TOP WIDTH _____ FT. SIDE SLOPES - UP _____ DOWN _____

RESERVOIR

SURFACE AREA _____ AC. STORAGE _____ AC.-FT.* _____ GALLONS**

ELEVATIONS

SETTLED FILL _____ PIPE SPILLWAY OUTLET _____

EARTH SPILLWAY CREST _____ ℄ LOW POINT _____

PIPE SPILLWAY CREST _____ PERMANENT POOL _____

* IF TOPO. NOT AVAILABLE, USE 0.4 x SURFACE AREA (ACRES) x MAXIMUM WATER DEPTH (FEET).
** 1 AC.FT. = 326,000 GALLONS.